Some of these have been amyotrophic lateral sclerosis, myopathie progressive primitive, syringomyelia and multiple neuritis.

These considerations lead the author to conclude that there remains no well-defined type to accord with Duchenne's original description, and that the disease, as such, has ceased to exist.

JELLIFFE.

72. WEITERER BEITRAG ZUR LEHRE VON DER HEREDITAEREN PROGRESSIVEN SPINALEN MUSKELATROPHIE IM KINDESALTER, NEBST BEMERKUNGEN UEBER DEN FORTSCHREITENDEN MUSKELSCHWUND IM ALLGEMEINEN (A further Contribution to the Study of the Hereditary, Progressive, Spinal, Muscular Atrophy in Childhood; with Remarks on Progressive Muscular Atrophy in General). J. Hoffmann (Deutsche Zeitschr. f. Nervenheilk., x., 1897, p. 292.

Hoffmann publishes a very important addition to his paper on the spinal form of hereditary muscular atrophy, which appeared in 1893. He reports the case of a child, who was born of sound parents, and in normal labor, and seemed to be healthy until the seventh or eighth month of life. At this time, without known cause and without the signs of an acute or chronic general affection, bilateral, flaccid paresis of the muscles of the hip, buttock and thigh was observed, which gradually extended and involved symmetrically the muscles of the back, neck, shoulder, upper limbs and legs, and caused more or less paralysis of these parts. The muscles first affected were most atrophied. The tendon reflexes were absent. Secondary changes in the joints and vertebral column were noted. Fibrillary tremor was absent. Sensation and the action of the sphincters were normal. The electrical reactions could not be obtained, though reaction of degeneration had been observed in other children of the family who had died with similar symptoms. The mental condition was normal. The facial, lingual and throat muscles were not paralyzed. Death occurred from secondary pulmonary disease when the child was about two and a half years old. The microscopical examination showed symmetrical and marked degeneration of all the peripheral motor neurons below the twelfth nerve, including the eleventh nerve; disappearance or degeneration of the cells of the anterior horns of the cord; great degeneration of the anterior spinal roots; less noticeable changes in the peripheral nerves and the intramuscular nerve branches; distinct degeneration of the crossed and direct pyramidal tracts and of a portion of the lateral columns, which was most evident in the upper thoracic and cervical regions, but not traceable above the motor decussation. Simple atrophy in all stages was noted in the muscles. The spinal affection was believed to be primary.

Hoffmann describes a third family in which this hereditary spinal form of atrophy was observed. The diagnostic features of the malady are: the heredity; the commencement in the first year of life; the *first* signs of atrophic, flaccid paralysis in the muscles of the pelvic girdle and thighs; the extension of the atrophy to the muscles of the trunk and limbs; the absence of tendon reflexes; the presence of reaction of degeneration, and the early death.

Twenty-two cases in all of this disease and four necropsies have been reported. In all four the peripheral neurons were found much degenerated and the muscles in a simple state of atrophy, and in three the anterolateral columns were affected.

At one time only the different forms of muscular atrophy, known as dystrophy, were supposed to be hereditary. Hoffmann speaks of the following four forms of hereditary muscular atrophy:

1. A form which begins in childhood in the muscles of the pelvic

girdle and extends from the trunks to the muscles of the extremities (Werdnig, Hoffmann).

2. An infantile, bulbar, paralytic, facial type (Fazio, Londe).
3. A Duchenne-Aran type (Strümpell, Gowers).
4. A transitional form.

It seems at present that the influence of heredity is more clearly shown in the myopathic and neurotic forms than in the myelopathic form of muscular atrophy. Fibrillary tremor is the rule in the spinal form and the exception in the purely muscular form of atrophy, and yet it may be absent in the spinal form. Reaction of degeneration may occasionally be absent in spinal muscular atrophy and, in exceptional cases, be present in the purely muscular form. Neither simple nor degenerative atrophy of the muscular fibres is a fair criterion of the nature of the atrophy. SPILLER.

73. BEITRAG ZUR LEHRE VON DER PROGRESSIVEN NEURALEN MUSKELATROPHIE (A Contribution to the Study of Progressive, Neural, Muscular Atrophy). By F. Egger (Archiv für Psychiatrie, 29, 1897, p. 400).

Egger reports two cases of progressive, neural muscular atrophy which occurred in brothers in a healthy family. The disease began in the younger patient when he was thirty-eight. It was first observed in the lower extremities in the peroneal muscles and on the right side of the body. Sensory disturbances were present in both cases. Muscular atrophy and paresis were soon visible in the upper limbs. Reaction of degeneration was also observed. The cases are reported on account of certain peculiar features. In both there was a possibility of poisoning from lead, and it may be that the effects of lead aided in the development of the disease. Vesical disturbance (frequent micturition and dribbling after urination) and swaying of the body on closure of the eyes were unusual symptoms in one patient. One of these cases shows that tabes must sometimes be considered in making a diagnosis of progressive, neural, muscular atrophy, for pain, loss of reflexes, Romberg's sign, girdle sensation and vesical disturbances are certainly very suggestive of tabes. Absence of pupillary rigidity does not necessarily exclude tabes, for an examination of over four hundred cases of tabes in Erb's clinic by Leimbach showed that changes in pupillary reaction were present only in 70.25 per cent., and in cases of one or two years' duration only in 63 per cent. The presence of the disease in two brothers and the early development of the muscular atrophy were contrary to the manifestation of tabes. Egger shares Oppenheim's opinion, viz., that progressive, neural, muscular atrophy is a chronic hereditary form of multiple neurosis; and in this aspect the possibility of lead poisoning in these two cases becomes of unusual interest. Egger thinks with Hoffmann that it is not probable that neuritis may be hereditary, but a slight power of resistance to disease may be transmitted, and it is well in treating a case of progressive neural, muscular atrophy to remove all injurious substances, lead, alcohol, etc., which are so deleterious in neuritis.

SPILLER.

74. BEITRAG ZUR NEURITISCHEN FORM DER PROGRESSIVEN MUSKELATROPHIE (Contributions to the Neural Form of Progressive Muscular Atrophy). Siemerling (Neurologisches Centralblatt, 16, 1897, p. 568, Abst.).

The case described occurred in a young man of 20, whose mother died of tuberculosis. Up to his 5-7th year he developed normally, and then his hands and lower thighs began to atrophy. From his thir-